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# SCIENCE NEWS LETTER

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THE WEEKLY SUMMARY OF CURRENT SCIENCE •



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## SCIENCE NEWS LETTER

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## BOOKS

BOOKS—the protectors of civilization's stores of accumulated knowledge—are also the torch-bearers leading the procession of research toward new scientific frontiers. In the pages of this week's SCIENCE NEWS LETTER, readers will find listed the latest offerings of those who are in the forefront of the march of research. Some are already published. Others are still on the presses and will greet you as the spring days grow warmer. The issue will serve throughout the year as a comprehensive bibliography of current works of science.

## MEDICINE

## New Antitoxin Promises A Cure of Gonorrhea

A NEW antitoxin which promises to be a specific cure for one of the hush-hush diseases, gonorrhea, was reported by Dr. T. Anwyl-Davies of St. Thomas' Hospital, London, at the conference of State and Provincial Health Authorities of North America meeting at the U. S. Public Health Service.

The new antitoxin is still in the experimental stage but Dr. Anwyl-Davies' results with it seem so encouraging that it will be tried by the U. S. Public Health Service at its venereal disease clinic at the U. S. Marine Hospital, Stapleton, N. Y., Dr. R. A. Vonderlehr of the federal health service said.

Dr. Anwyl-Davies reported excellent results in about half the 157 cases treat-

ed with this antitoxin and good results in another quarter of the cases. "Cures" were effected in 36 cases which have been observed for over three months. Two of these were cured in 16 days while other cases took up to 8 weeks.

The antitoxin is equally effective in acute and chronic cases, with and without complications, the British physician reported. It differs from other anti-toxins previously tried in this disease in the way it is prepared. Instead of being made by injecting the germ of the disease, the gonococcus, directly into horses, the toxin or poison produced by the gonococcus is injected into horses and the serum of these animals used for the antitoxin.

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## PHYSIOLOGY

## New Vitamin Reported Discovered in Hungary

A NEW vitamin, designated with the letter "P" by its Hungarian discoverers, is reported by the American Chemical Society (*Industrial and Engineering Chemistry*).

Vitamin P appears to be closely related to vitamin C and, like the better known substance, is found in lemons and paprika. Prof. A. Szent-Gyorgyi of Szeged University, Hungary, who discovered ascorbic acid, is credited with the new find.

The exact chemical nature of vitamin P is now being studied but already it appears to consist of a very large molecule containing either 81 or 83 atoms of carbon, hydrogen and oxygen. The

compound is said to decrease the permeability of cells to albumin and for this reason is supposed to have vitamin-like properties. The new substance appears to be a natural companion of vitamin C in plants.

Science News Letter, April 17, 1937

## ● RADIO

April 20, 5:15 p. m. E.S.T.

THE FLUID OF LIFE—Dr. William H. Howell of the Johns Hopkins University.

In the Science Service series of radio discussions led by Watson Davis, Director, over the Columbia Broadcasting System.

## MEDICINE

## Better Pneumonia Serum Obtained From Rabbits

**New Weapon Against the Pneumococcus More Effective  
Because Antibody Molecules Smaller; Is Also Cheaper**

A NEW and better way of making serum to cure pneumonia was described by Dr. Rufus Cole of the Hospital of the Rockefeller Institute, New York City, at the Conference of State and Provincial Health Authorities of North America.

Using rabbits instead of horses, two associates of Dr. Cole, Drs. Kenneth Goodner and Frank I. Horsfall, were able to make a serum that is more effective and cheaper to produce. Greater effectiveness results from the fact that the antibody molecules produced in the

rabbit's body to fight the pneumonia germs are smaller than the horse's antibodies and consequently spread more rapidly through tissues infected with pneumonia germs. Fighting pneumonia due to the pneumococcus depends on getting as many of these fighting antibodies into the patient's body as possible. The patient produces some himself, but the serum gives him a big extra force. For this reason Dr. Cole advocates large doses of serum, given as early in the disease as possible.

*Science News Letter, April 17, 1937*

## ASTRONOMY

## More Elements Discovered in Cold of Interstellar Space

DISCOVERY of several new interstellar gases, two of which have been identified as neutral potassium and calcium, has been made by Dr. Theodore Dunham, Jr., noted astronomer at the Carnegie Institution's Mount Wilson Observatory.

Space between stars is filled with atoms of various elements, and Dr. Dunham's research brings the total identified to four, one of which, calcium, appears in two forms.

Ionized calcium was the first interstellar gas to be discovered, and the discovery of neutral calcium by Dr. Dunham is considered remarkable because it is estimated that each cubic yard of space contains but one atom.

Detection of this very faint element was made possible by the development of delicate apparatus and an improvement in photographic plates.

Light from the stars Chi Orionis and 55 Cygni enabled Dr. Dunham to secure spectrograph plates of neutral calcium.

Using a new ultra-sensitive infra-red photographic plate at the Coude focus of the 100-inch telescope, the astronomer obtained evidence for the existence of

neutral potassium. For this he focussed the world's largest telescope upon Chi Orionis.

Previous interstellar elements detected include ionized calcium, sodium and titanium. Dr. Dunham and Dr. Walter S. Adams (director of Mount Wilson, announced their discovery of titanium last fall, the first new interstellar gas detected since about 1915.

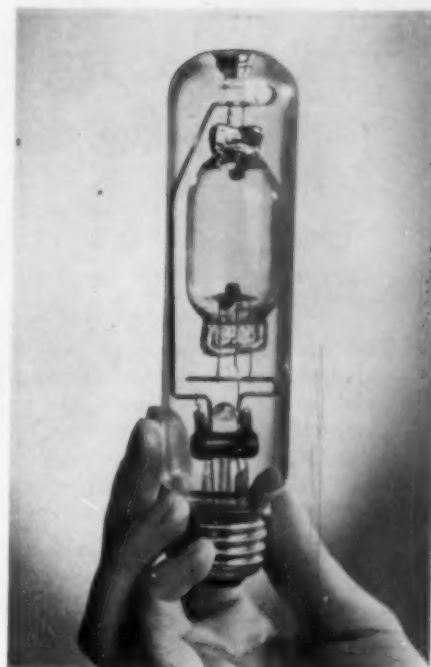
Because the intensity of the lines in the spectrum produced by the newly discovered interstellar elements varies from star to star, Dr. Dunham was moved to remark that this suggests that the distribution of gas throughout interstellar space is far from uniform. In other words, these atoms appear thicker in certain parts of the sky than in others.

*Science News Letter, April 17, 1937*

## PHYSIOLOGY

## Poisons Found in Blood Following Extensive Burns

THE general intoxication or poisoning which follows an extensive burn and may result in shock and death is



**LAMP WITHIN LAMP**

A new 100-watt lamp-within-a-lamp developed by Mazda gives as much light as the ordinary 200-watt bulb. Compact and using mercury vapor, the double walled bulb is still in the experimental stage but promises usefulness in those fields where economy is the watchword and where the color of the light rays is immaterial.

actually due to toxin in the blood, it appears from studies reported by Dr. Sol Roy Rosenthal of Chicago at the meeting of the American Association of Immunologists.

The poisonous substance, or toxin, was found in the blood after severe burns and an antitoxin which neutralized this substance was found in the blood after recovery from the burns. The poisonous substance makes the walls of small blood vessels more permeable so that blood plasma may leak through and the blood flow through these small vessels is retarded.

*Science News Letter, April 17, 1937*

## NATURE STUDY

## Water and Woods Form an Ideal Photograph Subject

**See Front Cover**

IN EARLY spring, the camera man's fancy turns to scenes of such natural beauty as that pictured on the front cover of this week's SCIENCE NEWS LETTER. It is from the camera of Fremont Davis, Science Service staff photographer.

*Science News Letter, April 17, 1937*



## SELECTED BOOKS in Science

» «

### Yoga: A SCIENTIFIC EVALUATION

by K. T. Behanan

The first exposition of an age-old mystery from the standpoint of science and in the perspective of Western culture. With details of various exercises and practices, and of experiments made in Yale laboratories. \$2.50

### Aftermath:

A Supplement to

"THE GOLDEN BOUGH"

by Sir James G. Frazer

Containing rich, new material upon subjects discussed in his monumental work, the world standard for the field, and bearing out strikingly his earlier hypothesis. \$3.00

### Marconi: THE MAN AND HIS WIRELESS

by Orrin E. Dunlap, Jr.

Here is the fascinating story of the Irish-Italian genius who, more than any other one man, is responsible for the great place of radio in today's life. \$3.50

### Photography

by C. E. Kenneth Mees

The director of research of the Eastman Kodak Company describes the various new lines of inquiry, and writes the history of picture taking from earliest times. \$3.00

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COLORED WATERS

Newest and one of the most beautiful attractions at Mammoth Hot Springs in Yellowstone National Park is this Twin Pool which spurted out of a dry terrace last summer. Before long its colored waters covered the entire plateau shown here and gradually new terraces began to appear on the slope where the spring overflowed. The community, part of which appears in the valley in the background, is Mammoth, park headquarters.

## PHYSICS

## May Yet Tap Atom's Energy, Yale Scientist Declares

MAN may yet tap the atom for an almost unlimited store of energy, Dr. Ernest C. Pollard, Yale physicist, predicted. (*Yale Scientific Magazine*).

"Probably not, but yet—maybe" is the way he answers the query as to whether there will be practical release of energy from the atom. The key to such cheap energy would be the conversion of matter into energy, which is theoretically plausible. If atomic energy were achieved the dreams of the ancient alchemists who hoped merely to turn lead into gold would fade into insignificance.

"The conversion of mass into energy involves multiplying by the square of the velocity of light," Dr. Pollard explained. "This gives us such huge figures that the question arises: Can we make the energy available? It seems as though the fact that the atom's nucleus is so small must mean a huge waste of particles in transmuting it so that the energy

is bought at a high cost, and yet the past five years have seen transmutations brought about on a millionfold greater scale. If we could multiply yet again by a hundred million then we might be successful."

Radioactive analysis may some day supplant ordinary chemical analysis, Dr. Pollard also predicted. Many elements have been produced in radioactive form and if every element can be made radioactive, the progress of chemical reactions will be traceable with a degree of refinement hitherto unattainable.

Because radiations, like X-rays, affect living things, changing the heredity of plants and animals, Dr. Pollard foresees that high energy radiations may enable man to anticipate evolution.

*Science News Letter, April 17, 1937*

Egyptian peasants today use farming methods very like those used in the time of the Pharaohs.

# NEW BOOKS ON SCIENCE

Science News Letter presents a comprehensive list of scientific books published or to be published between January 1 and June 30, 1937. All information is believed to be correct but is not guaranteed. Prices are listed where known. Prices marked \* are tentative.

## Aeronautics

- AIRCRAFT AND THE AIR—Eric Sargent—*Appleton*, \$5.  
 HEROES OF THE AIR, rev.—Chelsea Frazer—*Crowell*, \$2.50.  
 HISTORY OF AERONAUTICS—William B. Gamble, comp.—*N. Y. Pub. Lib.*  
 MATERIALS OF AIRCRAFT PROCESSES—George F. Titterton—*Pitman*, \$3.\*  
 MODERN BOOK OF AEROPLANES—W. H. McCormick—*Macmillan*, \$2.  
 YOUR WINGS—Assen Jordanoff—*Funk*, \$2.50.  
 ZEPPELIN—Ernst A. Lehmann—*Longmans*, \$3.  
 THE ANCIENT WORLD—W. E. Caldwell—*Farrar*, \$3.50.\*

## Archaeology—Anthropology

- AFTERMATH: A SUPPLEMENT TO THE GOLDEN BOUGH—Sir James G. Frazer—*Macmillan*, \$3.  
 THE AMERINDIANS—Donald McNichol—*Stokes*, \$2.50.  
 ANCIENT MAN IN THE MOHAVE DESERT, CALIFORNIA—Elizabeth W. C. and William H. Campbell—*Southwest Mus.*  
 ANTHROPOLOGY: An Introduction to Primitive Culture—Alexander Goldenweiser—*Crofts*, \$5. trade ed., \$3.75 text ed.  
 ARCHAEOLOGICAL EXPLORATIONS IN PERU, Part III: Textiles of the Early Nazca Period—Lila M. O'Neale—*Field Mus.*  
 ARCHAEOLOGICAL EXPLORATIONS IN PERU, Part IV: The Cañete Valley—A. L. Kroeber—*Field Mus.*  
 THE CHACO CANYON AND ITS MONUMENTS—Edgar L. Hewett—*U. N. Mex.*, \$2.50.  
 CONTINENT LOST—A CIVILIZATION WON: Indian Land Tenure in America—J. P. Kinney—*Johns Hopkins*.  
 EXCAVATIONS AT LA MATA, MARACAY, VENEZUELA—W. C. Bennett—*Amer. Mus. Nat. Hist.*  
 EXCAVATIONS AT TEPE HISSAR, DAMGHAN—Eric F. Schmidt—*U. Penn.*, \$10.\*  
 GEORGIA'S DISPUTED RUINS—Ellis Merton Coulter, ed.—*U. of N. C.*, \$3.50.  
 GLAZED TILES FROM A PALACE OF RAMESSES II AT KANTIR—W. C. Hayes—*Metrop. Mus.*, \$2.  
 HISTORY OF HAWIKUH, NEW MEXICO, ONE OF THE SO-CALLED CITIES OF CIBOLA—Frederick Webb Hodge—*Southwest Mus.*, \$3.  
 HOPI JOURNAL, 2 vols.—Alexander M. Stephen, ed. by Elsie C. Parsons—*Columbia*, \$10.  
 INDIANS' BOOK—Natalie Curtis, ed.—*Harper*.  
 INDIANS OF THE RIO GRANDE VALLEY—Edgar L. Hewett—*U. N. Mex.*  
 KHORSABAD—I, Excavations in the Palace and at a City Gate—Gordon Loud—*U. Chicago*, \$10.  
 MEDINET HABU GRAFFITI—William F. Edgerton—*U. Chicago*, \$15.  
 NAVEN—G. Bateson—*Cambridge (Macmillan)*, \$5.  
 NOTES ON HOPI ECONOMICS—Ernest Beaglehole—*Yale*, \$1.50.  
 OKLAHOMA DELAWARE CEREMONIES, DANCES AND FEASTS—Frank G. Speck—*U. Penn. for Amer. Philosophical Soc.*, \$2.  
 PLEISTOCENE MAN IN MINNESOTA—Albert E. Jenks—*U. Minn.*, \$7.50  
 THE QUINAULT INDIANS—Ronald L. Olson—*U. of Wash.*, \$2.  
 RACE MIXTURE AMONG THE GREEKS BEFORE ALEXANDER—Aubrey Diller—*U. of Ill.*, \$2.50.

- REDISCOVERING ILLINOIS—Fay-Cooper Cole and Thorne Deuel—*U. Chicago*, \$2.  
 RHYTHM FOR RAIN—John L. Nelson—*Houghton*, \$3.75.  
 ROAD MY BODY GOES—Clifford Gessler—*John Day and Reynal*, \$3.50.  
 THE SAVAGE HITS BACK—Julius Lips—*Yale*, \$5.  
 SCANDINAVIAN ARCHAEOLOGY—Shetelig and Falk—*Oxford*, \$7.  
 SHOLL'S HUMANITOME—C. V. Sholl—*Verbis*, \$5.  
 SNOWSHOES—D. S. Davidson—*U. Penn. for Amer. Philosophical Soc.*, \$2.50.  
 SURINAME FOLKLORE WITH TRANSCRIPTIONS OF SURINAME SONGS AND MUSIOLOGICAL ANALYSIS BY DR. M. KOLINSKI—Melville J. and Francis S. Herskovits—*Columbia*, \$5.  
 TEMPLE DOCUMENTS FROM UMMU OF THE THIRD DYNASTY OF UR—G. G. Hackman—*Yale*, \$5.  
 25TH ANNIVERSARY VOLUME OF THE PHILADELPHIA ANTHROPOLOGICAL SOCIETY—D. S. Davidson, ed.—*U. Penn.*, \$2.50.\*  
 VOTIVE AND HISTORICAL TEXTS FROM BABYLONIA AND ASSYRIA—Ferris J. Stephens—*Yale*, \$5.\*

## Astronomy

- AMATEUR TELESCOPE MAKING—Advanced—A. G. Ingalls, ed.—*Munn*, \$3.  
 THE DISTRIBUTION OF THE STARS IN SPACE—Bart J. Bok—*U. Chicago*, \$2.50.  
 ENGINEERING ASTRONOMY—J. H. Service—*Prentice-Hall*.  
 TEXT-BOOK ON SPHERICAL ASTRONOMY, 2d ed.—W. M. Smart—*Cambridge (Macmillan)*, \$5.50.

## Biology

- AUTONOMIC NEURO-EFFECTOR SYSTEMS—W. B. Cannon and A. Rosenbluth—*Macmillan*, \$4.\*  
 BACTERIOLOGY—A Textbook of Microorganisms, 3d ed.—F. W. Tanner—*Wiley*, \$4.50.\*  
 BIOCHEMISTRY OF THE LIPIDS—H. B. Bull—*Wiley*, \$2.75.  
 BIOLOGICAL TIME—P. Lecomte du Noüy—*Macmillan*, \$2.\*  
 BIOLOGY—U. A. Hauber and M. E. O'Hanlon—*Crofts*, \$3.90.  
 EVOLUTION UP-TO-DATE—Julian Huxley—*Harper*, \$2.50.\*  
 FUNDAMENTALS OF BACTERIOLOGY—Martin Frobisher—*Saunders*, \$3.75.  
 G. CARL HUBER MEMORIAL VOLUME OF THE JOURNAL OF COMPARATIVE NEUROLOGY—*Wistar Inst.*, \$7.50.  
 AN INTRODUCTION TO COMPARATIVE BIOCHEMISTRY—E. Baldwin—*Cambridge (Macmillan)*, \$1.50.  
 A LABORATORY ATLAS OF THE PIG EMBRYO—Edward A. Boyden—*Wistar Inst.*, \$2.  
 MANUAL OF BIOLOGICAL ASSAYING—James C. Munch—*Lippincott*.  
 MEASUREMENT OF RADIATION—W. E. Forsythe, ed.—*McGraw*.  
 THE METABOLISM OF LIVING TISSUES—E. Holmes—*Cambridge (Macmillan)*, \$2.25.  
 A MODERN BIOLOGY—E. J. Holmes and R. D. Gibbs—*Cambridge (Macmillan)*, \$1.32.  
 OUTLINE OF THE FUNDAMENTALS OF BACTERIOLOGY—A. H. Bryan—*Barnes & Noble*, \$1.  
 PHYTOHORMONES—F. W. Went and K. V. Thimann—*Macmillan*.

- PICTURING MIRACLES OF PLANT AND ANIMAL LIFE—Arthur C. Pillsbury—*Lippincott*, \$3.  
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 TEXTBOOK IN EDUCATIONAL BIOLOGY—H. Clay Skinner and others—*Amer. Bk.*  
 TWINS: A Study in Heredity and Environment—H. H. Newman, F. N. Freeman and K. J. Holzinger—*U. Chicago*, \$4.  
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## Botany—Agriculture

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 AN ARTIST'S HERBAL—Louise Mansfield—*Macmillan*, \$2.50.  
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 BOOK OF GARDEN FLOWERS (Sun Dial)—Robert M. McCurdy—*Garden City*, 98c.  
 BOOK OF GARDEN STRUCTURE AND DESIGN—H. D. Eberlein and C. Van D. Hubbard—*Lippincott*, \$5.  
 BRITISH GRASSES AND THEIR EMPLOYMENT IN AGRICULTURE, 3d ed.—S. F. Armstrong—*Cambridge (Macmillan)*, \$5.50.\*  
 COLLOID CHEMISTRY, PRINCIPLES AND APPLICATIONS (4th ed.)—Jerome Alexander—*Van Nostrand*, \$4.50.  
 COLUMBIA UNIVERSITY STUDIES IN THE HISTORY OF AMERICAN AGRICULTURE, No. 4—*Columbia*, \$3.\*  
 CONSERVATION OF THE SOIL—A. F. Gustafson—*McGraw*.

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FLORA OF PERU, Part II, No. 2—J. Francis Macbride—Field Mus.

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GARDENING ON NOTHING A YEAR—Mary S. Griffith—Hale, \$1.75.

GARDENS AND GARDENING, 1937—F. A. Mercer—Studio, \$4.50 and \$3.50.

GENERAL AND ECONOMIC BOTANY—E. E. Stanford—Appleton, \$4.

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PLEASURES AND PROBLEMS OF A ROCK GARDEN—Louise Beebe Wilder—Garden City, \$1.79.

PRACTICAL AGRICULTURE FOR HIGH SCHOOLS—Daniel Cobb McIntosh and Don Mathis Orr—American Book Co., \$1.40.

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PRACTICAL TREE SURGERY—Millard F. Blair—Christopher, \$4.

THE REDWOODS OF COAST AND SIERRA, new ed.—James Clifford Shirley—U. Calif., \$1.25.



### FIND THE FISHES

Can you recognize any of the fish expertly portrayed in this second century mosaic picture from Antioch, Syria? An American-French joint expedition unearthed the mosaic, pronounced one of the earliest representations of Mediterranean fish according to species. Prof. E. G. Conklin, Princeton University, has identified clam, scallop, eel, sturgeon, a variety of squid, and members of the bass and mackerel families. Of the 11 species depicted, two remain unrecognized.

ROADSIDES, THE FRONT YARD OF THE NATION—J. M. Bennett—Stratford, \$3.

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### METROLOGY

## Nothing Impossible

● "What I want to know is: Can the thing happen that I saw happen?" Such was the Hibernian appeal to the United States Weather Bureau of a man who said that invariably he was called several sorts of a liar every time he ventured to tell of the occasion, years ago, when he saw a 'twister,' or tornado, as it more technically is called, pick up a railroad locomotive from one track and set it down uninjured, and headed the other way, on a neighboring parallel track. Of course he was told what while such a thing was not to be expected as an every-day occurrence, nevertheless those who have experienced tornadoes put nothing past them.—W. J. Humphreys in WEATHER RAMBLES (*William & Wilkins*).

*Science News Letter, April 17, 1937*

### PSYCHOLOGY

## Not Mature

● "As long as people become angry over superficial social situations, are afraid of what other people will think, are dependent upon older people or members of their own sex for happiness, or are inclined to take everything personally, they have not yet ceased to be adolescents. It is at once clear that some people never grow up and that others do not become mature until long after they have passed beyond the age of legal responsibility." — Luella Cole in THE PSYCHOLOGY OF ADOLESCENCE (*Farrar & Rinehart*).

*Science News Letter, April 17, 1937*

### MATHEMATICS

## Calculation

● "The Moslem civilization which swept across the southern domain of the Roman Empire brought together the technique of measurement, as it had evolved in the hands of the Greeks and the Alexandrians, adding the new instrument for handling numbers which was developed through the invention of the Hindu number symbols. In the hands of Arabic mathematicians like Omar Khayyám, the main features of a language of calculation took shape. We still call it by the Arabic name, algebra.

"Along the trade routes this new arithmetic is brought into Europe by Jewish scholars from the Moorish universities of Spain and by Gentile merchants trading with the Levant, some of them patronized by nobles whose outlook had been unintentionally broadened by the Crusades. Europe stands on

# THE AU

the threshold of the great navigations. Seafarers are carrying Jewish astronomers who can use the star almanac which Arabic scholarship has prepared. The merchants are becoming rich. More than ever the world is thinking in large numbers."—Lancelot Hogben in MATHEMATICS FOR THE MILLION (*Norton*).

*Science News Letter, April 17, 1937*

### HISTORY

## Room for All

● "Even down to the present day, no English town has ever been so lavishly supplied with public buildings, relatively to the size of its population, as was the average tribal capital by the end of the first century. A town hall that would hold every man, woman, and child in the city, and more; a second building where they might all watch shows at once; another, where every one of them might bathe daily; such things are hard to believe in these times, when all the public halls and theatres and picture-palaces of an English town will together hold, only perhaps a tenth of its population. These public buildings were, no doubt, planned and executed by a small autocratic body; but they were not intended for the use of that body; they were patently designed for the use of the entire city populace."—R. G. Collingwood and J. N. L. Myres in ROMAN BRITAIN AND THE ENGLISH SETTLEMENTS (*Oxford*).

*Science News Letter, April 17, 1937*

### MATHEMATICS

## General

● "The expert user of mathematics is a general commanding perfectly trained armies he never sees. Unforeseen combinations, inherent in the planned coördination, but not themselves deliberately planned, appear as if by fate in the engagement with the unknown.... Whatever be the explanation, it is historically true that scientists gifted with mathematical imagination have frequently made discoveries of unsuspected physical phenomena. To this extent at least mathematics has helped science."—Eric Temple Bell in THE HANDMAIDEN OF THE SCIENCES (*Williams & Wilkins and Reynal*).

*Science News Letter, April 17, 1937*



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### One Life

● "Some children are kept so much in cotton wool and shielded from every risk during their early years at home that they are greatly at a loss when subsequently exposed to the hard knocks of school life and the outside world. They become over-anxious and fearful, and their inclination to avoid the chances of accident and injury may have adverse effects on their character which persist for the rest of their lives. Still, it ought to be possible to instil in the minds of the children the idea that they have only *one* life, which they can, in due course, devote to adventure. . . . It is mere foolishness to risk their lives by omitting such simple precautions as a preliminary look-out for traffic before crossing a road."—H. M. Vernon in *ACCIDENTS AND THEIR PREVENTION Cambridge (Macmillan)*.

*Science News Letter, April 17, 1937*

## RADIO

### Wireless

● "Yes, this thing called wireless was so simple, but even so how could a layman catch the idea. The engineers liked this simile of a stone tossed into a placid pond: A series of ripples is created which spread out in ever-widening circles; any small bits of wood floating on the surface are bobbed up and down by each successive ripple. The stone is the 'transmitter'; the pond is the 'ether'; the wood is the 'receiver'.

"But think how complicated the ripples if ten stones or even two were thrown in at once. To detect each ripple clearly, that was the trick—and Marconi could do it; he separated each one by tuning."—Orrin E. Dunlap, Jr. in *MARCONI THE MAN AND HIS WIRELESS (Macmillan)*.

*Science News Letter, April 17, 1937*

## BIOLOGY

### Organismalism

● "Whatever it is that sees to all these essential needs of an animal, it is more than the parts or the mechanisms of the parts. For want of a better name we call it the whole of the organism.

"Some call it the vital principle. There is no objection to this name, provided it

is properly interpreted. If it is meant to imply that there exists in an organism an unknown force that interferes in any way with the physical and chemical activities of the organism, it is objectionable to scientists and is not based on sound philosophy. The vital principle is not a force separate and distinct from the organism itself."—U. A. Hauber in *BIOLOGY: A STUDY OF THE PRINCIPLES OF LIFE FOR THE COLLEGE STUDENT (Crofts)*.

*Science News Letter, April 17, 1937*

## CHRONOLOGY

### Lamp Clock

● "The Romans combined a clock with a lamp. There was a long tube of glass set upright and in the tube there were painted figures to indicate the hours. The tube was filled with oil up to the hour at which it was lighted, and as the oil was burned, the time was indicated. At a date still recent these lamp clocks were used at night by peasants in Holland and Germany."—P. W. Wilson in *THE ROMANCE OF THE CALENDAR (Norton & Co.)*.

*Science News Letter, April 17, 1937*

## PSYCHOLOGY

### Poise

● "Older people naturally tend to be more cautious and more ingenious in the face of perils. They have a richer background. Knowing more, they fear less. Their very lack of explosive endocrine energies steadies them and reduces the chances of panic. Sometimes, too, their weaker interest in living works to the same end. People who care little whether they go on living or not keep their inner and outer poise in crises which upset the life-hungry."—Walter B. Pitkin in *CAREERS AFTER FORTY (Whittlesey House)*.

*Science News Letter, April 17, 1937*

## PSYCHOLOGY

### Aptitudes

● "The obvious main function of standardized tests of aptitudes is to help in estimating the probabilities that a person would be able to follow successfully an occupation he is considering. Related uses are to discover unsuspected talents; to suggest possible alternative fields; to bring to attention endowments which might well be capitalized, and disabilities which should be recognized and removed or compensated for; and in general, to provide the inquirer, whether youthful or mature, with food for objective thinking about himself and his future relations to the world of work."—Walter Van Dyke Bingham in *APTITUDES AND APTITUDE TESTING (Harper)*.

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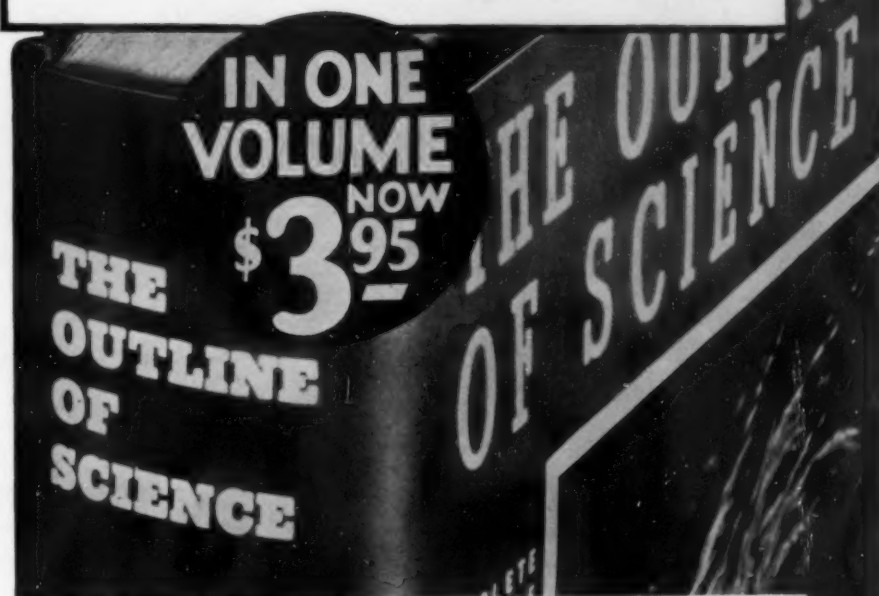
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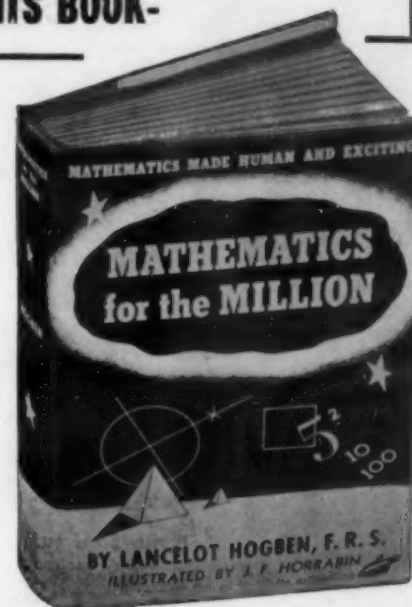
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